REMARKS

Claims 1-34 are pending in this application. Claim 2 is amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. The Applicant appreciates the Examiner's indication of allowability concerning claims 4, 6-8, 17-18, 20, 26-27, 29-34.

I. Claim Rejections - 35 USC § 112

The Examiner states that Claim 2 recites the limitation "the intervals" in Line 4. There is insufficient antecedent basis for this limitation in the claim according to the Examiner.

Claim 2 has been amended accordingly.

II. Claim Rejections - 35 USC § 102

Claims 1-3, 5, 9, 11-16, 19-24, 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsai (US 6,734,998). The Applicant respectfully traverses.

No claim is anticipated under 35 U.S.C. §102 (b) unless all of the elements are found in exactly the same situation and united in the same way in a single prior art reference. As mentioned in the **MPEP §2131**, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros.

v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Every element must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 9 USPQ2d 1913, 1920 (CAFC 1989). The identical invention must be shown in as complete detail as is contained in the patent claim. *Id.*, "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson,* 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970), and MPEP 2143.03.

1. For claim 1, which is representative of claims 15 and 22, the Examiner states that Tsai teaches an apparatus for correcting a scanning error in a flatbed scanner, the apparatus comprising: a white shading plate having a black patch (Col 2 Lines 57-59); a reading module accommodating reading of said white shading plate and said black patch (Col 2 Lines 53-57); and a controller comparing information of said black patch read by said reading module with a predetermined reference value to correct the scanning error in the flatbed scanner (Col 2 Lines 64 - Col 3 Lines 15 and Col 4 Lines 45-56).

However, respectfully, the black patch in Tsai is from a document to be scanned, while in the present invention the black patch is included the white shading plate.

In Tsai, the black patch is in a separate document to be scanned as seen for example in col. 2, lines 57-59, "For a preferred embodiment of the present invention, the document 36 has a white background with a test pattern that is a black bias 37." Furthermore, as seen figure 3 of Tsai, the black bias 37 is on the separate document 36 that is not a part of the scanning unit itself. In addition, as seen in col. 4, lines 62-63, in step 52, Tsai states to "Scan the black bias 37 on the document 36,

and then collect the corresponding image information from the scan lines." Furthermore, as seen in col. 6, lines 30-33, Tsai states "scanning a document having a test image and collecting corresponding scan line image information from a plurality of scan lines in order". Therefore, it is clear that Tsai discloses the black bias on a separate document.

In the present invention, however, the black patch and white shading plate is included in the scanner as mentioned in claims 1, 15 and 22. For example, in claim 1 it states: *An apparatus for correcting a scanning error in a flatbed scanner, the apparatus comprising: a white shading plate having a black patch.*

Therefore, Tsai teaches the black bias being on a separate document while the present invention includes the black patch on the scanner.

Therefore, in Tsai as seen in step 52, an extra step of inserting the document to be scanned with a black bias in the scanner. However, in the presently claimed invention, such an extra step is not needed. Furthermore, by placing a document in the scanner, there can be an introduction of further alignment problems if the document for example is not located properly. However, as the black patch is located in the scanner for the present invention, such is a problem is avoided.

2. Regarding claim 2, which is representative of claims 16 and 27, the Examiner states that Tsai discloses wherein the information of said black patch comprises at least one of information of the edge lines of said patch read through said reading module and information of the intervals of said

black patch, and the predetermined reference value includes a plurality of values (Col 3 Lines 15-26).

However, the predetermined reference value with the plurality of values for correction of scanning error is not disclosed in Tsai since Tsai in cool. 4, lines 45-48 states that "each error value ERRi is compared against *a predetermined gate value (TD)*". Therefore, only a single value is used in the comparison for error in Tsai rather than a plurality of values as used in the present invention.

3. For claim 3, which is representative of claim 20, the Examiner states that Tsai discloses controller correcting a scan start line using the result of comparing a predetermined value with a number of pixels corresponding to an interval by which said reading module is moved from a top edge line of said black patch read through said reading module to a predetermined point (Fig 5; Col 3 Lines 15-20).

In Tsai, the top edge line is not necessarily used as P1, P2, P3 is a boundary point between the black and white region in general, but does not necessarily look at from a top edge line.

4. Considering claim 5, which is representative of claims 19, the Examiner states that Tsai teaches said controller setting a scan region based on the detection of a rightmost edge line of said black patch through said reading module and a position of a first pixel being read obtained during reading of said white shading plate to correct a scanning error for the position of the first pixel being read (Col 3 Lines 5-15).

However, Tsai does not look to reading the first pixel by reading the white shading plate of the scanner, but concerns the document included for scanning. Furthermore, the right most edge line

is not necessarily disclosed in Tsai. Col. 3 mentions boundaries on the left side and right side, but this does not mean the right most edge. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient." *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981). The identical invention as arranged in the claim must be disclosed as mentioned in MPEP §2131.

5. Regarding claim 9, the Examiner states that Tsai discloses said controller adjusting a scan rate based on predetermined right and left intervals with respect to the center of said black patch read through said reading module (Fig 7-8).

However, steps 50-96 do not disclose the adjusting of the scan rate or even the determination of the scan rate. No adjustment of the scan rate is given. Rather steps 50-96 determine the scanning misalignment as boundary and comparison to a gate value is made. Specifically, steps 50-76 include determination of the scan line misalignment as seen in figure 7 and steps 80-96 specifically shows how the boundary line is determined for determination of the scan line misalignment. Therefore, Tsai, unlike the present invention, the scan rate is not adjusted as arranged in the present claim.

6. Considering claim 11, the Examiner states that Tsai teaches the predetermined reference value being set based on a pattern of said black patch (Col 2 Line 64 - Col 3 Line 15 and Col 4 Lines 45-56).

However, the set predetermined reference value for comparison with the read values of information is stated in step 62 in col. 5, line 7, as the "appropriate gate value (TD)." However, it

is not clear if this concerns the pattern of the black patch. No specific disclosure is made concerning the gate value in Tsai and whether that specifically concerns the pattern of the black patch.

7. For claim 12, the Examiner states that it is inherent the apparatus comprises a memory for storing the predetermined value.

However, it is not necessarily inherent that the apparatus itself holds in its memory the predetermined value. Inherency, however, may not be established by probabilities or possibilities. As mentioned above, the mere fact that a certain thing may result from a given set of circumstances is not sufficient. In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted).

The apparatus does not necessarily include the memory for predetermined value. For example, the value could be stored in a personal computer or other network device connected to the scanning device in Tsai. Tsai does not necessarily include the memory for storage of the predetermined value.

8. Further for claim 13, the Examiner states that Tsai teaches comprising a transparent glass on which a document is placed (Col 2 Lines 53-57); it is inherent the apparatus includes a buffer storing an image read through said reading module, with the controller controlling the output of the image stored in the buffer to correct the scanning error (Col 2 Lines 64 - Col 3 Lines 15 and Col 4 Lines 45-56).

However, Tsai discloses the determination of a misalignment error, but there is no specific disclosure on the technique of correcting including the controller controlling the output of the image specifically stored in the buffer to correct the scanning error. For example, the error can be passed on to a connected device which corrects for the error in the image through software on a connected personal computer, rather the device itself. Col. 2, lines 64-col. 3, line 15 and col. 4, lines 45-56 only concern the determination of misalignment error, but does not teach the correction as identically arranged in the present claim.

9. Regarding claim 21, the Examiner states that Tsai teaches when predetermined right and left intervals with respect to the center of said black patch are detected, a scan rate is adjusted based on the result of comparing each of the detected predetermined intervals with a corresponding predetermined value (Col 3 Lines 5-15).

However, as seen in col. 3, lines 5-15, only the boundary points for the detection of misalignment is disclosed, but no disclosure as to the scan rate being adjusted and not with regard to the intervals as claimed.

10. Regarding claim 25, the Examiner states that Tsai teaches detecting the information of said black patch further comprising of checking whether an interval of said white shading plate between a first edge of said black patch and a second edge of said black patch is detected to have white pixels (Col 3 Lines 16-37).

However, as mentioned above, the white shading plate of the scanner is not looked at by Tsai,

but rather the black bias on the document to be scanned.

III. Allowable Subject Matter

The Examiner stated that Claims 4, 6-8, 17-18, 20, 26-27, 29-34 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The applicant appreciates the examiner's indication of allowability pertaining to claim 4, 6-8, 17-18, 20, 26-27, 29-34 . In accordance with 37 C.F.R. § 1.111(b), the applicant respectfully requests that the examiner temporarily hold objections and requirements as to form in abeyance until the remarks and amendments in this Amendment are considered by the examiner.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

No fee is incurred by this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

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